DENNY WAY

LAKE UNION

CSO Control Project

Issue No.1,
Dec.1997

(Notice of Availability of Final SEIS/EA)

About the *Project*

King County Department of Natural Resources and the City of Seattle (Seattle Public Utilities) are planning to build a joint project to control combined sewer overflows (CSOs) into Lake Union and Elliott Bay. CSOs are discharges of combined sanitary sewage and stormwater that are released into local waterbodies during periods of high rainfall.

Numerous public meetings have been held to provide information on the project and allow for citizen feedback. More meetings will be held as design proceeds, and during the construction phase. This newsletter is another way of keeping interested citizens informed on the progress of the project, and on opportunities for them to provide input.

The Denny Way/Lake Union CSO Control Project (hereinafter called the Denny/Lake Union Project) is being built in four phases:

Phase 1 is a Seattle sewer enlargement project along the east side of Lake Union. Construction of this phase was completed in fall 1997.

City of Seattle

King County

EPA
U.S. Environmental Protection Agency

Phase 2 is a Seattle project connecting the Phase 1 facilities to the tunnel that will be built in Phase 3/4. It will involve construction of a pipeline along Valley Street (south Lake Union) between Fairview and Westlake Avenues, and a pipeline in Lakeview Boulevard from Prospect Street under I-5 at East Galer Street to Fairview Avenue.

The combined Phase 3/4 is a King County CSO storage/treatment project to reduce CSO volumes at the Denny Way Regulator Station. It will involve a tunnel to convey and store CSOs, CSO facilities at a site on Elliott Avenue West at West Mercer Street, a new outfall to discharge treated flows during heavy storms, and an outfall extension off Myrtle Edwards Park.

Construction for Phases 2 and 3/4 is scheduled to begin in the year 2000 and is expected to be complete by the end of 2003.

Why is this Project Necessary?

The purpose of the Denny/Lake Union Project is to improve the water quality of Lake Union and Elliott Bay by reducing discharges of combined sewage. The need for this project is defined under federal and state laws, recognizing the value of high water quality to public health, public enjoyment, and "propagation and protection of wildlife, game, birds, fish and other aquatic life" (RCW 90.48.010). The County and City were awarded a $35 million grant for this project by the EPA in 1995.

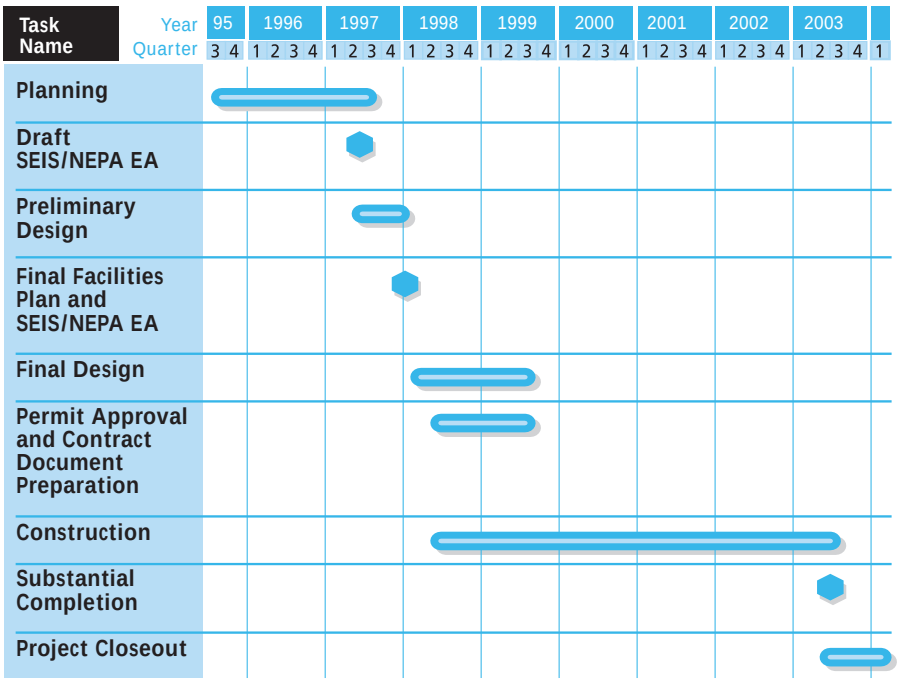
Seattle's sewer system in the Denny/Lake Union area was designed and constructed before wastewater treatment plants were built. The intent of the original collection system was to move sanitary sewage and stormwater away from the built-up area and discharge it to the nearest waterbody. In more recent years, the highest priorities for improving water quality have been improving and upgrading the treatment plants, and addressing CSOs to fresh water, primarily Lake Washington and the Ship Canal.

Upon completion, the Denny/Lake Union Project will significantly reduce both the volume and the frequency of untreated CSOs to Lake Union and Elliott Bay.

Right now, untreated CSOs are discharged to Lake Union between 10 and 115 times per year, depending on rainfall and other weather conditions. CSOs are discharged about 50 times per year into Elliott Bay at Myrtle Edwards Park.

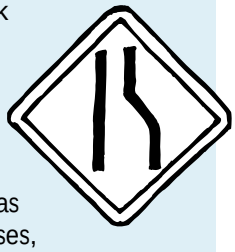
This project will store CSO flows during small and moderate storms and transfer the flows to the West Point Treatment Plant when capacity is available. During large storms, treated flows will be discharged into Elliott Bay 4 to 20 times per year, and untreated CSOs will be discharged one time per year (on average) at each remaining CSO outfall location. To some people that still seems like one time too many. But peak flows during very large storms create extreme conditions which are virtually impossible to completely control, and the system requirements to address these extreme conditions would be prohibitively expensive.

Denny Way/Lake Union Project Schedule



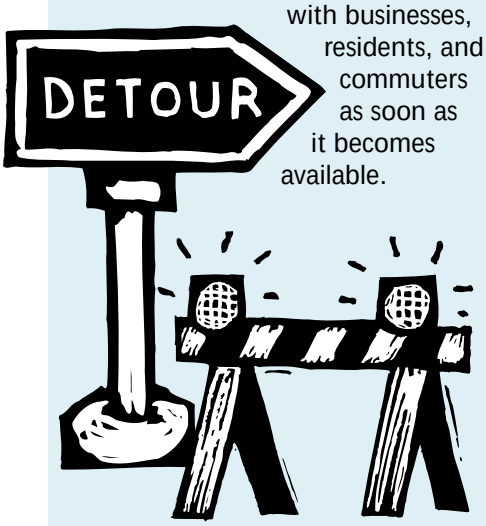
Construction Impacts

The CSO project will address water quality problems in Lake Union and Elliott Bay that result from CSOs. To reach this goal, however, some short-term construction impacts will be experienced by businesses, residents, drivers, and others in the south Lake Union and Elliott Avenue West and West Mercer Street areas. Both the City and County try to design their projects in a manner that minimizes impacts, but impacts cannot be avoided altogether.



The County and City are determined to work hard to ensure that the construction projects are managed in a way that causes as few disruptions as possible to businesses, commuters, and residents in the area.

Construction is set to begin in 2000. A timeline for the entire project is printed at the left. It is difficult to pinpoint at this time exactly how long any one specific area will experience construction impacts, but both the County and City will share that information with businesses, residents, and commuters as soon as it becomes available.



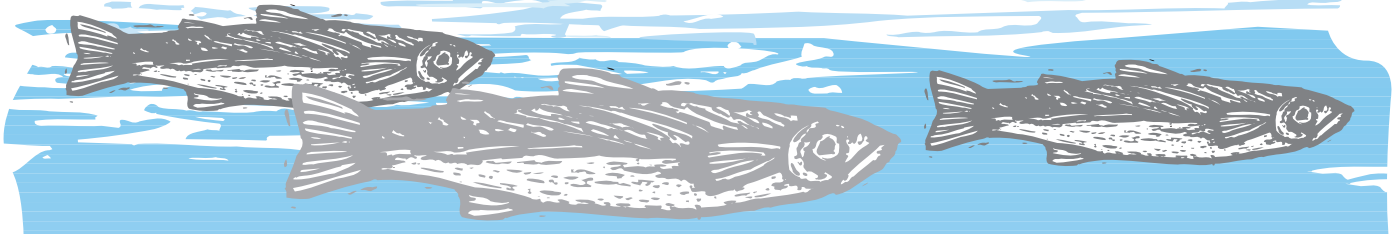
Summary of *Environmental Impacts* and Mitigation Measures

The State Environmental Policy Act Supplemental Environmental Impact Statement/National Environmental Policy Act Environmental Assessment (SEPA SEIS/NEPA EA) includes a discussion of impacts and mitigation measures for all elements of the environment. The following are some of the short-term and long-term environmental impacts that could result from construction and operation of the Preferred Alternative.

Short-term construction impacts could include soil erosion, dust and vehicle emissions, construction noise, traffic congestion, lane and street closures, and disturbance of existing contaminated soils and sediments.

Long-term operation impacts would include the reduction of CSO frequency and volume into waterbodies, resulting in long-term water quality improvement, reduction in risks to human and aquatic life, benefits to recreational enjoyment of waterbodies. The appearance of the Elliott Avenue West site would be altered by the project.

Mitigation measures reduce the impact of the project on the natural and built environment. Some of the mitigation measures anticipated to reduce the above impacts are implementing erosion control measures, following permit requirements, replacing vegetation, monitoring cultural resources, avoiding in-water construction during salmon migration, establishing detour routes, minimizing disruptions to businesses and residents, and adding architectural treatment to aboveground facilities.



The Final Environmental Document of the Denny Way/ Lake Union CSO Control Project is Available:

The Final SEPA SEIS/NEPA EA document for the Denny/Lake Union Project is available at no cost to interested citizens. Copies of the document can be obtained in person from:

King County's Environmental Planning Section,
8th Floor, Exchange Building, 821 Second Avenue.
For more information call Karen Watkins, Environmental Planner, (206) 684-1171.

Copies of the Final SEPA SEIS/NEPA EA, and documents incorporated by reference, are also available for review at the following libraries:

King County Transportation and Natural Resources Library,
Exchange Building, 821 Second Avenue, 9th Floor*

Seattle Public Libraries: Main Branch,
1000 Fourth Avenue

Fremont Branch,
731 North 35th Street

Magnolia Branch,
2801 - 34th Avenue West

Queen Anne Branch,
400 West Garfield Street

Wallingford Wilmot Branch,
4423 Densmore Avenue North

*The Facilities Plan for the project, which contains technical information on the facilities to be built, is also available for review at the King County Transportation and Natural Resource Library. A limited number of copies are available by request.
Please call: (206) 684-1785.

Finding the *Right Solution* to the CSO Problems in Lake Union and Elliott Bay

To determine the best approach to reducing CSOs, the Denny/Lake Union Project team evaluated several alternatives in the Facilities Plan and SEIS/EA. Alternative 1 was chosen as the preferred alternative, and is being carried forward into final design. It, and the other two alternatives, are described below.

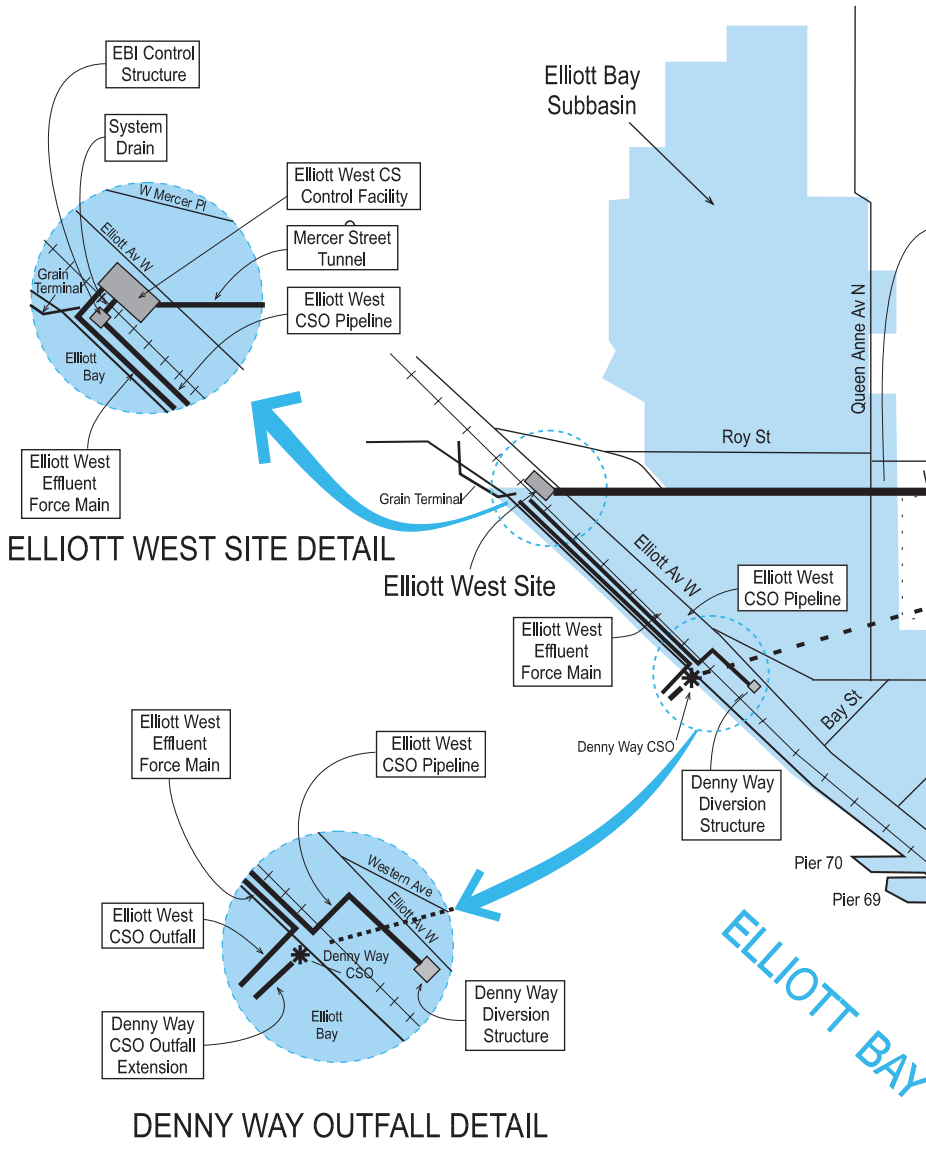
Alternative 1

The Preferred Alternative - CSO Storage and Treatment

This alternative would control South Lake Union and Denny Way CSOs by storing flows during moderate storms before transferring them to the West Point Treatment Plant after the storm subsides, and providing at-site treatment at the Elliott West site during heavy rain conditions with discharge of treated flows through a new outfall. The Elliott West site is located at 545 to 601 Elliott Avenue West. The existing outfall at the Denny Way Regulator Station in Myrtle Edwards Park would be extended.

Elliott Bay Subbasin Facilities

- Large size pipelines in the Alaskan Way right-of-way from the CSO control facility to the area near the Denny Way Regulator Station.
- Belowground regulating structures in Myrtle Edwards Park at Denny Way, and over the Elliott Bay Interceptor within the Alaskan Way right-of-way.
- 6,200 lineal feet of a 14.5-foot diameter tunnel under Mercer Street from Elliott Avenue to Dexter Avenue North, then paralleling Broad northeast to Roy Street.
- New effluent outfall into Elliott Bay and extension of the existing Denny Way CSO outfall from the Denny Way Regulator Station.
- CSO Control Facility including influent pump station, floatable control channel, odor control facilities, system drain and chemical storage/feed facilities for disinfection.



South Lake Union Subbasin Facilities

- Large pipelines would be located: 1) in Valley Street right-of-way from Fairview to Westlake; 2) in Broad and Roy Streets between the Westlake/Valley intersection and Dexter; 3) in Eighth Avenue North between Republican and Roy streets; and 4) between the regulating structure in Dexter Avenue North and the tunnel portal in Roy Street.
- Belowground regulating structures in Dexter Avenue North at Roy Street and at the intersection of Eighth Avenue North and Republican Street.
- Tunnel portal under Roy Street west of Broad Street.

Alternative 2

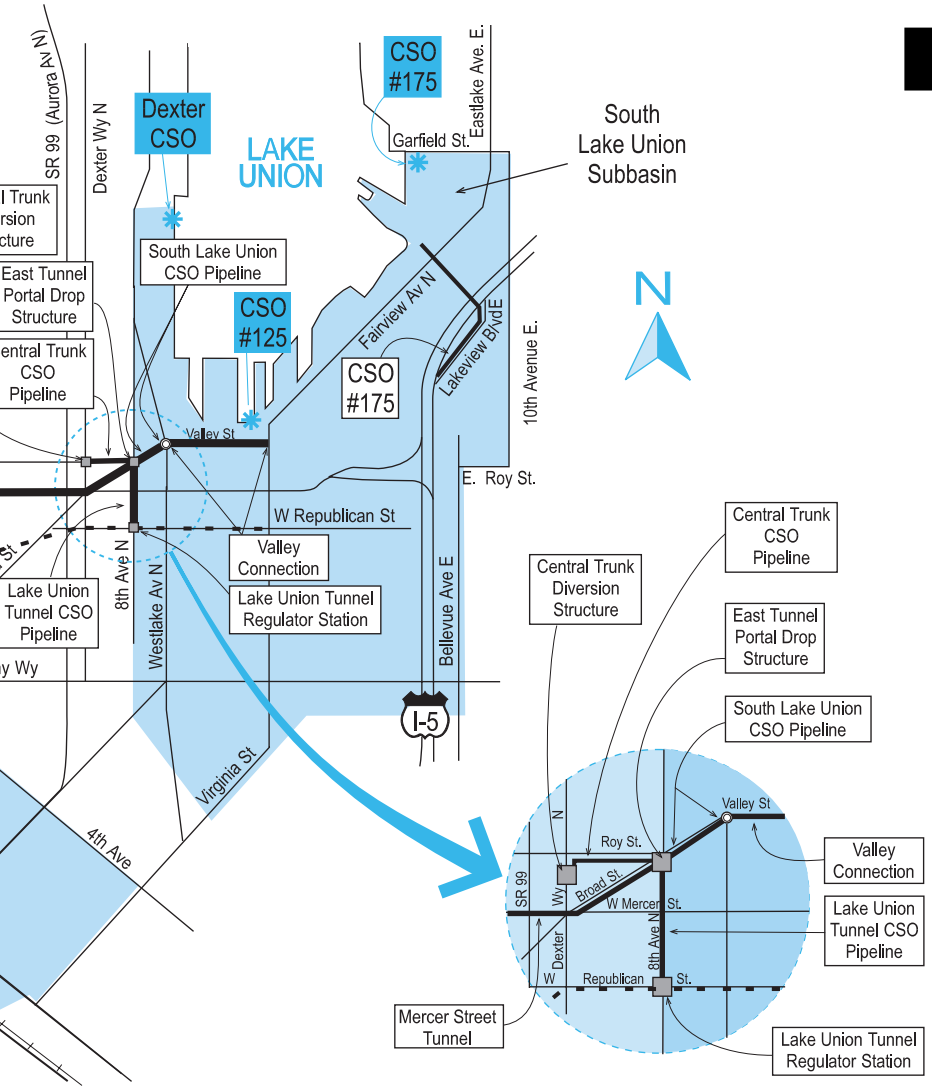
Partial Separation and Storage

This alternative would control South Lake Union and Denny Way CSOs by installing new storm sewers to handle street runoff, storing remaining CSO flows in storage tanks during moderate storms, and transferring the flows to the West Point Treatment Plant after the storm subsides. This alternative was not selected for final design and construction because it costs significantly more than Alternative 1 and would cause significant construction impacts from construction of 24 miles of new storm sewers in the South Lake Union and Denny Regrade areas, and up to nine new stormwater outfalls into Lake Union and Elliott Bay.

Alternative 3

No Action Alternative

Under Alternative 3, no new CSO control facilities would be constructed in the South Lake Union and Elliott Bay subbasins. Discharge of CSOs would continue at current levels into Lake Union and Elliott Bay. This alternative would violate existing laws and agreements related to the reduction of CSOs; however, it was evaluated, under the requirements of SEPA and NEPA, as a baseline condition against which the impacts of the alternatives could be measured.



SOUTH LAKE UNION DETAIL

Commonly Asked Questions About the Denny/Lake Union Project:

We understand that South Lake Union water quality will be improved by this project. But what about CSOs that occur on the Ship Canal? The Ship Canal and Lake Union are part of the same system.

This project will reduce overflows from the Seattle CSO outfalls located along the east and south shores of Lake Union, and a King County CSO outfall on the west shore of the lake. As a result, CSOs directly into the lake will be controlled. King County and the City of Seattle have CSO control plans that address CSOs on the Ship Canal, and propose a schedule for reducing them. King County completed a project which reduced CSOs into the Ship Canal at the University Regulator in 1994. Because of the magnitude of the CSO problem, both agencies have used a phased approach to controlling CSOs, beginning with the highest priority areas. The City and County have been implementing these plans over the past 10 years, and will be implementing additional control projects over the next 20 years or more.

Construction of the City's Phase 1 project on Eastlake caused traffic problems and inconvenience for residents and businesses. Will construction impacts be better managed on this project?

The City and County are aware of community issues raised during the City's construction of Phase 1 and are committed to minimizing these kinds of problems with this project. Appropriate construction constraints and restrictions will be incorporated into contract documents and will be enforced by City and County staffs. During construction, staff will share information with business owners on a regular basis to update them on construction scheduling, progress, and anticipated impacts.

I understand that the plan is for the CSO control facility to be sited next to the Darigold building on Elliott Avenue West. What will it look like?

The Elliott West site is currently about eight feet below the street grade of Elliott Avenue West. The site will be re-graded so that the future ground level would be at street level. The CSO control facilities will be partially underground. The aboveground structure will be 35 - 40 feet tall (above future grade). The aboveground facilities will be roofed, and architectural treatment and landscaping will be used to reduce the visual impacts from adjacent businesses, Elliott Avenue West, and Queen Anne Hill.

With stormwater and sewage running through the Elliott West CSO Control Facility, won't there be a lot of odor?

To prevent odor problems during storms and when the facility is idle between storms, state-of-the-art odor control facilities will be installed at both the control facility and at the east tunnel portal in South Lake Union.

How will construction of the Elliott West CSO Control Facility be managed?

During construction, County staff will regularly share information with business owners and residents to update them on construction scheduling, progress, and anticipated impacts during upcoming weeks.

King County is working closely with SeaTrans to identify measures to ensure minimal disruptions to traffic on Elliott Avenue West during construction. These measures will be identified in detail as design progresses.

Will this project control the flooding we have experienced in our basements in the Westlake area in the past?

Not completely. The project will provide increased sewer system capacity during storms, and should reduce some of the flooding that results from system capacity limitations. But some of the street and basement flooding that occurs during heavy storms has other causes that will not be addressed by this project. For example, side sewers serving businesses along Westlake Avenue North may lack capacity, or be in poor repair, or catch basins may be clogged with leaves, litter, and debris, resulting in flooding.

Those experiencing flooding problems should contact Carlos Sanabria at 206-386-9786 (Seattle Public Utilities) during regular business hours to get more information on what can be done to address localized flooding problems. In the event of emergency flooding, call SPU Drainage Operations at the Dispatch Center, 386-1230, 24 hours a day.

How can I make sure that my business stays open and profitable during construction?

The County and City are working with businesses now to better understand the nature of the businesses that may be impacted during construction. The more information we receive from these businesses early in the process, the better we will be able to plan for, design and schedule construction to minimize disruptions.

Who do I call for more information?

For King County project information, please contact Margaret Norton-Arnold at Norton Arnold & Janeway. Margaret is managing all public information/involvement for King County on this project. She can be reached by phone at 206-583-8304, Fax: 206-269-0249, E-mail: mnanaj@aa.net. For additional information on the City project, please contact Laura Scharf, SPU Project Manager, at 206-684-5150, Fax: 206-684-8581, E-mail: laura.scharf@ci.seattle.wa.us.